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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
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| 09/865,510 | 05/29/2001 | Yozo Yoshimura | 037267-0139 | 3156 |
| 22428 | 7590 | 09/21/2004 | EXAMINER | |
| FOLEY AND LARDNER SUITE 500 3000 K STREET NW WASHINGTON, DC 20007 | | | OSMAN, RAMY M | |
| | | | ART UNIT | PAPER NUMBER |
| | | | 2157 | |

DATE MAILED: 09/21/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

| | | | | |
|------------------------------|------------------------|--|---------------------|--|
| Office Action Summary | Application No. | | Applicant(s) | |
| | 09/865,510 | | YOSHIMURA, YOZO | |
| | Examiner | | Art Unit | |
| | Ramy M Osman | | 2157 | |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-31 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-18 and 23-31 is/are rejected.
- 7) ☒ Claim(s) 18-23 is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. ____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s)/Mail Date. ____. |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date ____. | 6) <input type="checkbox"/> Other: ____. |

DETAILED ACTION

Claim Rejections - 35 USC § 112

1. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

2. Claims 1,3,8,9,11,16,23,24,26 and 31 rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention. "Re-arrangement of network resources" is not explained in the specification. The specification does not discuss what are the steps of re-arrangement of network resources.

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

4. Claims 2,10 and 25 recites the limitation "past cells" in line 3. There is insufficient antecedent basis for this limitation in the claim.

5. Claims 2,10 and 25 rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.. Applicant recites the limitation "past cells" in line 3, but fails to explain whether its past failure data or past traffic in each cell, etc.

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6. Claims 8,16 and 31 rejected under 35 U.S.C. 112, second paragraph, as being indefinite.

Applicant states "checking said MTBF data" but doesn't explain what it is being checked for.

Claim Rejections - 35 USC § 102

7. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

8. Claims 1-3,9-11 and 24-26 rejected under 35 U.S.C. 102(a) as being anticipated by Agrawal et al (US Patent No 5,991,629).

9. In reference to claim 1,9 and 24, Agrawal teaches a network administration system comprising a network administrator which performs re-arrangement of network resources:

said network administrator including functions of: (a) estimating a probability at which failures would occur in a cell in which network resources have been re-arranged; and (b) repeating re-arrangement of network resources for minimizing said probability. (Abstract, Summary, column 1 lines 10-23 & 45-67, column 4 lines 20-67 and column 6 lines 39-67)

10. In reference to claim 2,10 and 25, Agrawal teaches the network administration system as set forth in claim 1, wherein said network administrator further includes a function of calculating a probability at which failures would occur, based on data about past cells. (Abstract, Summary and column 1)

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11. In reference to claim 3,11 and 26, Agrawal teaches the network administration system as set forth in claim 1 wherein said network administrator further includes a function of indicating a probability at which failures would occur in each of cells in which network resources have been re-arranged. (Abstract, Summary and column 1)

Claim Rejections - 35 USC § 103

12. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

13. Claims 4-8,12-17 and 27-31 rejected under 35 U.S.C. 103(a) as being unpatentable over Agrawal et al (US Patent No 5,991,629) in view of Huang et al (US Patent No 6,735,548) in further view of Scrandis et al (US Patent No 6,694,455) in further view of Svedin et al (US Patent No 5,442,682).

14. In reference to claim 4,12,17 and 27, Agrawal teaches the network administration system as set forth in claim 1. Agrawal fails to explicitly teach it further comprising:

- A first database storing MTBF data indicative of mean time between failures (MTBF) of components constituting a mobile communication system. However, Huang teaches MTBF of components in a network to be used in network availability analysis for network optimization. (column 1 lines 5-10, column 2 lines 10-60, column 3 lines 5-7, column 4 lines 1-10 and column 6 lines 5-45)

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It would have been obvious for one of ordinary skill in the art to modify Agrawal by storing MTBF of components in a network as per the teachings of Huang so it can be used in network availability analysis for network optimization.

- Agrawal teaches memory of cell activity which includes errors (figures 3-6). But Agrawal fails to teach a second database storing failure data about past failures of components constituting a cell. However, Scrandis teaches storing network element fault objects in a database for network management. (column 4 line 60 – column 5 line 5)

It would have been obvious for one of ordinary skill in the art to modify Agrawal by storing network element fault objects in a database as per the teachings of Scrandis for the purpose of network management.

- A third database storing cell site data indicative of past traffic. However, Svendin teaches registering data traffic in a cell. (column 1 lines 9-65)

It would have been obvious for one of ordinary skill in the art to modify Agrawal by registering data traffic in a cell as per the teachings of Svendin for the purpose of network management.

15. In reference to claim 5,13 and 28, Agrawal teaches the network administration system as set forth in claim 4, further comprising a cell site which informs said network administrator of said cell site data in each of cells. (Summary and figures 3-6)

16. In reference to claim 6,14 and 29, Agrawal in view of Huang in further view of Scrandis in further view of Svandin teach the network administration system as set forth in claim 5, wherein said network administrator further includes a function of calculating a probability at

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which failures would occur, based on said MTBF data, said failure data, and said cell site data.

(see rejection for claim 4)

17. In reference to claim 7,15 and 30, Agrawal teaches network administration system as set forth in claim 6, wherein said network administrator further includes a function of constructing and retrieving said first to third databases. Agrawal teaches constructing and retrieving memory data (Summary and figures 3-6). (See also rejection for claim 4)

18. In reference to claim 8,16 and 31, Agrawal in view of Huang in further view of Scrandis in further view of Svandin teaches network administration system as set forth in claim 7, wherein said network administrator further includes a function of checking said MTBF data, said failure data and said cell site data with one another, and calculating a probability at which failures would occur in the re-arranged mobile communication network, in each of cells. (see rejection for claim 4)

Priority

19. Applicant cannot rely upon the foreign priority papers to overcome this rejection because a translation of said papers has not been made of record in accordance with 37 CFR 1.55. See MPEP § 201.15.

Allowable Subject Matter

20. Claims 18-23 objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

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21. The following is a statement of reasons for the indication of allowable subject matter, if it was written included in the independent claims with all intervening claims:

The limitation of: the step of extracting data indicative of a frequency at which failures occurred, out of said data about past cells and said data about a target cell, and calculating a failure probability in accordance with the equation X/Y wherein X indicates data about past cells in which failures occurred, and Y indicates data about all past cells, was not found to be within any of the cited references.


Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ramy M Osman whose telephone number is (703) 305-8050.

The examiner can normally be reached on M-F 9-5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ario Etienne can be reached on (703) 308-7562. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

RMO
September 19, 2004



SALEH NAJJAR
PRIMARY EXAMINER